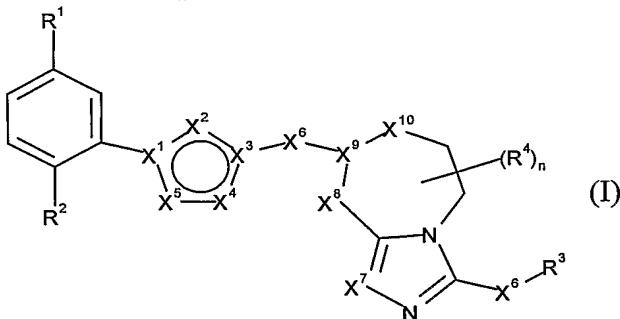


CLAIMS

1. A compound of formula I:



wherein

X^1 , X^2 , X^3 , X^4 , and X^5 are independently selected from the group consisting of C, CR^5 , N, O, and S, wherein at least one of X^1 , X^2 , X^3 , X^4 , and X^5 is not N;

X^6 is selected from the group consisting of a bond and CR^5R^6 ;

X^7 is CR^5 or N;

X^8 is selected from the group consisting of a bond, CR^5R^6 , NR^5 , O, S, SO, and SO_2 ;

X^9 is CR^5 or N;

X^{10} is selected from the group consisting of a bond, CR^5R^6 , $(CR^5R^6)_2$, O, S, and NR^5 ;

R^1 is selected from the group consisting of hydroxy, halo, nitro, C_{1-6} alkylhalo, OC_{1-6} alkylhalo, C_{1-6} alkyl, OC_{1-6} alkyl, C_{2-6} alkenyl, OC_{2-6} alkenyl, C_{2-6} alkynyl, OC_{2-6} alkynyl, C_{0-6} alkyl C_{3-6} cycloalkyl, OC_{0-6} alkyl C_{3-6} cycloalkyl, C_{0-6} alkylaryl, OC_{0-6} alkylaryl, CHO, $(CO)R^5$, $O(CO)R^5$, $O(CO)OR^5$, $O(CN)OR^5$, C_{1-6} alkylOR 5 , OC_{2-6} alkylOR 5 , C_{1-6} alkyl($CO)R^5$, OC_{1-6} alkyl($CO)R^5$, C_{0-6} alkyl CO_2R^5 , OC_{1-6} alkyl CO_2R^5 , C_{0-6} alkylcyano, OC_{2-6} alkylcyano, C_{0-6} alkyl NR^5R^6 , OC_{2-6} alkyl NR^5R^6 , C_{1-6} alkyl($CO)NR^5R^6$, OC_{1-6} alkyl($CO)NR^5R^6$, C_{0-6} alkyl $NR^5(CO)R^6$, OC_{2-6} alkyl $NR^5(CO)R^6$, C_{0-6} alkyl $NR^5(CO)R^6$, C_{0-6} alkyl $NR^5(CO)NR^5R^6$, C_{0-6} alkylSR 5 , OC_{2-6} alkylSR 5 , C_{0-6} alkyl($SO)R^5$, OC_{2-6} alkyl($SO)R^5$, C_{0-6} alkyl SO_2R^5 , OC_{2-6} alkyl SO_2R^5 , C_{0-6} alkyl($SO_2)NR^5R^6$, OC_{2-6} alkyl($SO_2)NR^5R^6$, C_{0-6} alkyl $NR^5(SO_2)R^6$, OC_{2-6} alkyl $NR^5(SO_2)R^6$, C_{0-6} alkyl $NR^5(SO_2)R^6$, C_{0-6} alkyl $NR^5(SO_2)NR^5R^6$, OC_{2-6} alkyl $NR^5(SO_2)NR^5R^6$, $(CO)NR^5R^6$, $O(CO)NR^5R^6$, NR^5OR^6 , C_{0-6} alkyl $NR^5(CO)OR^6$, OC_{2-6} alkyl $NR^5(CO)OR^6$, SO_3R^5 and a 5- or 6-membered ring containing atoms independently selected from the group consisting of C, N, O and S, wherein said ring may be substituted by one or more A;

R^2 is selected from the group consisting of hydrogen, hydroxy, halo, nitro, C_{1-6} alkylhalo, OC_{1-6} alkylhalo, C_{1-6} alkyl, OC_{1-6} alkyl, C_{2-6} alkenyl, OC_{2-6} alkenyl, C_{2-6} alkynyl, OC_{2-6} alkynyl, C_{0-6} alkyl C_{3-6} cycloalkyl, OC_{0-6} alkyl C_{3-6} cycloalkyl, C_{0-6}

6alkylaryl, OC₀₋₆alkylaryl, CHO, (CO)R⁵, O(CO)R⁵, O(CO)OR⁵, O(CN)OR⁵, C₁₋₆alkylOR⁵, OC₂₋₆alkylOR⁵, C₁₋₆alkyl(CO)R⁵, OC₁₋₆alkyl(CO)R⁵, C₀₋₆alkylCO₂R⁵, OC₁₋₆alkylCO₂R⁵, C₀₋₆alkylcyano, OC₂₋₆alkylcyano, C₀₋₆alkylNIR⁵R⁶, OC₂₋₆alkylNIR⁵R⁶, C₁₋₆alkyl(CO)NR⁵R⁶, OC₁₋₆alkyl(CO)NR⁵R⁶, C₀₋₆alkylNIR⁵(CO)R⁶, OC₂₋₆alkylNIR⁵(CO)R⁶, C₀₋₆alkylNIR⁵(CO)NR⁵R⁶, C₀₋₆alkylSR⁵, OC₂₋₆alkylSR⁵, C₀₋₆alkyl(SO)R⁵, OC₂₋₆alkyl(SO)R⁵, C₀₋₆alkylSO₂R⁵, OC₂₋₆alkylSO₂R⁵, C₀₋₆alkyl(SO₂)NR⁵R⁶, OC₂₋₆alkyl(SO₂)NR⁵R⁶, C₀₋₆alkylNIR⁵(SO₂)R⁶, OC₂₋₆alkylNIR⁵(SO₂)R⁶, C₀₋₆alkylNIR⁵(SO₂)NR⁵R⁶, (CO)NR⁵R⁶, O(CO)NR⁵R⁶, NR⁵OR⁶, C₀₋₆alkylNIR⁵(CO)OR⁶, OC₂₋₆alkylNIR⁵(CO)OR⁶, SO₃R⁵ and a 5- or 6-membered ring containing atoms independently selected from the group consisting of C, N, O and S, wherein said ring may be substituted by one or more A;

R^3 is a 5- or 6-membered ring containing atoms independently selected from the group consisting of C, N, O and S, wherein said ring may be substituted by one or more A;

R^4 is selected from the group consisting of hydroxy, halo, nitro, C_{1-6} alkylhalo, OC_{1-6} alkylhalo, C_{1-6} alkyl, OC_{1-6} alkyl, C_{2-6} alkenyl, OC_{2-6} alkenyl, C_{2-6} alkynyl, OC_{2-6} alkynyl, C_{0-6} alkyl C_{3-6} cycloalkyl, OC_{0-6} alkyl C_{3-6} cycloalkyl, C_{0-6} alkylaryl, OC_{0-6} alkylaryl, CHO, $(CO)R^5$, $O(CO)R^5$, $O(CO)OR^5$, $O(CN)OR^5$, C_{1-6} alkyl OR^5 , OC_{2-6} alkyl OR^5 , C_{1-6} alkyl $(CO)R^5$, OC_{1-6} alkyl $(CO)R^5$, C_{0-6} alkyl CO_2R^5 , OC_{1-6} alkyl CO_2R^5 , C_{0-6} alkylcyano, OC_{2-6} alkylcyano, C_{0-6} alkyl NR^5R^6 , OC_{2-6} alkyl NR^5R^6 , C_{1-6} alkyl $(CO)NR^5R^6$, OC_{1-6} alkyl $(CO)NR^5R^6$, C_{0-6} alkyl $NR^5(CO)R^6$, OC_{2-6} alkyl $NR^5(CO)R^6$, C_{0-6} alkyl $NR^5(CO)NR^5R^6$, C_{0-6} alkyl SR^5 , OC_{2-6} alkyl SR^5 , C_{0-6} alkyl $(SO)R^5$, OC_{2-6} alkyl $(SO)R^5$, C_{0-6} alkyl SO_2R^5 , OC_{2-6} alkyl SO_2R^5 , C_{0-6} alkyl $(SO_2)NR^5R^6$, OC_{2-6} alkyl $(SO_2)NR^5R^6$, C_{0-6} alkyl $NR^5(SO_2)R^6$, OC_{2-6} alkyl $NR^5(SO_2)R^6$, C_{0-6} alkyl $NR^5(SO_2)NR^5R^6$, OC_{2-6} alkyl $NR^5(SO_2)NR^5R^6$, $(CO)NR^5R^6$, $O(CO)NR^5R^6$, NR^5OR^6 , C_{0-6} alkyl $NR^5(CO)OR^6$, OC_{2-6} alkyl $NR^5(CO)OR^6$, SO_3R^5 and a 5- or 6-membered ring containing atoms independently selected from the group consisting of C, N, O and S, wherein said ring may be substituted by one or more A;

R^5 and R^6 are independently selected from the group consisting of hydrogen, C_{1-6} alkyl, C_{3-7} cycloalkyl and aryl;

A is selected from the group consisting of hydrogen, hydroxy, halo, nitro, C₁-6alkylhalo, OC₁-6alkylhalo, C₁-6alkyl, OC₁-6alkyl, C₂-6alkenyl, OC₂-6alkenyl, C₂-6alkynyl, OC₂-6alkynyl, C₀-6alkylC₃-6cycloalkyl, OC₀-6alkylC₃-6cycloalkyl, C₀-6alkylaryl, OC₀-6alkylaryl, CHO, (CO)R⁵, O(CO)R⁵, O(CO)OR⁵, O(CN)OR⁵, C₁-6alkylOR⁵, OC₂-6alkylOR⁵, C₁-6alkyl(CO)R⁵, OC₁-6alkyl(CO)R⁵, C₀-6alkylCO₂R⁵, OC₁-6alkylCO₂R⁵, C₀-6alkylcyano, OC₂-6alkylcyano, C₀-6alkylNR⁵R⁵, OC₂-6alkylNR⁵R⁸, C₁-6alkyl(CO)NR⁵R⁸, OC₁-6alkyl(CO)N R⁵R⁸, C₀-6alkylNR⁵(CO)R⁸, OC₂-6alkylNR⁵(CO)R⁸, C₀-6alkylNR⁵(CO)N R⁵R⁸, C₀-6alkylSR⁵, OC₂-6alkylSR⁵, C₀-6alkyl(SO)R⁵, OC₂-6alkyl(SO)R⁵, C₀-6alkylISO₂R⁵, OC₂-6alkylISO₂R⁵, C₀-6alkyl(SO₂)NR⁵R⁸, OC₂-6alkyl(SO₂)NR⁵R⁸, C₀-6alkylNR⁵(SO₂)R⁸, OC₂-6alkylNR⁵(SO₂)R⁸, C₀-6alkylNR⁵(SO₂)NR⁵R⁸, OC₂-6alkylNR⁵(SO₂)NR⁵R⁸,

(CO)NR⁵R⁸, O(CO)NR⁵R⁸, NR⁵OR⁸, C₀₋₆alkylNR⁵(CO)OR⁸, OC₂₋₆alkylNR⁵(CO)OR⁸, SO₃R⁵ and a 5- or 6-membered ring containing atoms independently selected from the group consisting of C, N, O and S;

n is 0, 1, 2, 3, or 4; or
a pharmaceutically acceptable salt or hydrate thereof;

provided that:

- a) when X₂ = X₄ = X₅ = N, and either of X₈ or X₁₀ is a bond, then X₉ is not N,
- b) when X⁷ is N at least two of X¹, X², X³, X⁴, and X⁵ are not N,
- c) X¹ and X³ are not O;

and provided that the compound is not:

8-[5-(3-Chloro-phenyl)-[1,2,4]oxadiazol-3-ylmethyl]-3-pyridine-4-yl-5,6,7,8-tetrahydro-[1,2,4]triazolo[4,3-a]pyridine,
8-[5-(3-Chloro-phenyl)-[1,2,4]oxadiazol-3-ylmethyl]-3-thiophen-2-yl-5,6,7,8-tetrahydro-[1,2,4]triazolo[4,3-a]pyridine,
8-[5-(5-Chloro-2-fluoro-phenyl)-[1,2,4]oxadiazol-3-ylmethyl]-3-pyridine-4-yl-5,6,7,8-tetrahydro-[1,2,4]triazolo[4,3-a]pyridine,
8-[5-(3-Chloro-phenyl)-[1,2,4]oxadiazol-3-ylmethyl]-3-pyridine-4-yl-5,6,7,8-tetrahydro-[1,2,4]triazolo[4,3-a]pyrimidine,
8-[5-(5-Chloro-2-fluoro-phenyl)-[1,2,4]oxadiazol-3-ylmethyl]-3-pyridine-4-yl-5,6,7,8-tetrahydro-[1,2,4]triazolo[4,3-a]pyrimidine,
8-[5-(3-Chloro-phenyl)-[1,3,4]oxadiazol-2-ylmethyl]-3-pyridine-4-yl-5,6,7,8-tetrahydro-[1,2,4]triazolo[4,3-a]pyrimidine,
8-[1-[5-(3-Chloro-phenyl)-[1,3,4]oxadiazol-2-yl]-ethyl]-3-pyridin-4-yl-5,6,7,8-tetrahydro-[1,2,4]triazolo[4,3-a]pyrimidine,
8-[5-(5-Chloro-2-fluoro-phenyl)-[1,2,4]oxadiazol-3-ylmethyl]-3-furan-2-yl-5,6,7,8-tetrahydro-[1,2,4]triazolo[4,3-a]pyrimidine,
8-[1-[5-(3-Chloro-phenyl)-[1,2,4]oxadiazol-3-yl]-ethyl]-3-pyridin-4-yl-5,6,7,8-tetrahydro-[1,2,4]triazolo[4,3-a]pyrimidine,
3-Pyridin-4-yl-8-[1-(5-m-tolyl-[1,2,4]oxadiazol-3-yl)-ethyl]-5,6,7,8-tetrahydro-[1,2,4]triazolo[4,3-a]pyrimidine,
(+)-8-{(1S)-1-[5-(3-chlorophenyl)-1,2,4-oxadiazol-3-yl]ethyl}-3-pyridin-4-yl-5,6,7,8-tetrahydro-[1,2,4]triazolo[4,3-a]pyrimidine,
(-)-8-{(1R)-1-[5-(3-chlorophenyl)-1,2,4-oxadiazol-3-yl]ethyl}-3-pyridin-4-yl-5,6,7,8-tetrahydro-[1,2,4]triazolo[4,3-a]pyrimidine,
3-[5-(3-Pyridin-4-yl-6,7-dihydro-5H-[1,2,4]triazolo[4,3-a]pyrimidin-8-ylmethyl)[1,3,4]oxadiazol-2-yl]benzonitrile,
3-{5-[3-(2-Methoxypyridin-4-yl)-6,7-dihydro-5H-[1,2,4]triazolo[4,3-a]pyrimidin-8-ylmethyl][1,3,4]oxadiazol-2-yl}benzonitrile,
3-{5-[3-(2-Methoxy-pyridin-4-yl)-6,7-dihydro-5H-[1,2,4]triazolo[4,3-a]pyrimidin-8-ylmethyl]-[1,2,4]oxadiazol-3-yl}-benzonitrile,

3-{3-[(3-pyridin-4-yl-6,7-dihydro[1,2,4]triazolo[4,3-*a*]pyrimidin-8(5H)-yl)methyl]-1,2,4-oxadiazol-5-yl}benzonitrile,
 3-(3-{[3-(2-methoxypyridin-4-yl)-6,7-dihydro[1,2,4]triazolo[4,3-*a*]pyrimidin-8(5H)-yl]methyl}-1,2,4-oxadiazol-5-yl)benzonitrile,
 3-{5-[(3-pyridin-4-yl-6,7-dihydro[1,2,4]triazolo[4,3-*a*]pyrimidin-8(5H)-yl)methyl]-1,2,4-oxadiazol-3-yl}benzonitrile, and
 3-{5-[3-(2-Hydroxy-pyridin-4-yl)-6,7-dihydro-5H-[1,2,4]triazolo[4,3-*a*]pyrimidin-8-ylmethyl]-1,2,4]oxadiazol-3-yl}-benzonitrile.

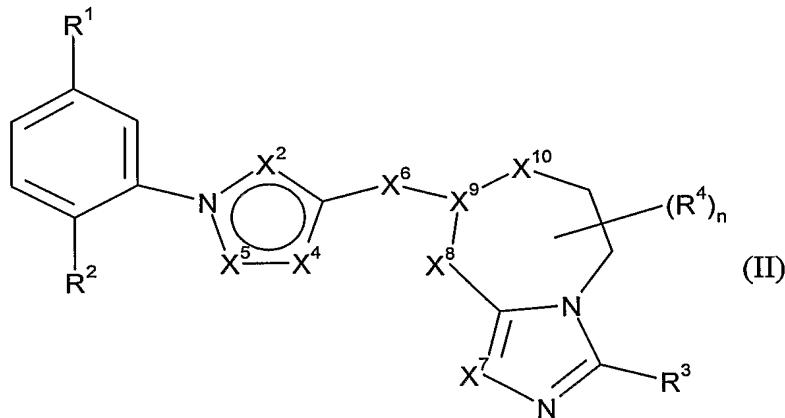
2. The compound according to claim 1, provided that the compound is not 8-[5-(5-Chloro-phenyl)-[1,2,4]oxadiazol-3-ylmethyl]-3-furan-2-yl-5,6,7,8-tetrahydro-[1,2,4]triazolo[4,3-*a*]pyrimidine,

3. The compound according to claim 1, wherein R¹ is halo, C₁₋₆alkylhalo, C₁₋₆alkyl, OC₁₋₆alkyl, or C₀₋₆alkylcyano.

4. The compound according to claim 1, wherein R² is hydrogen or halo.

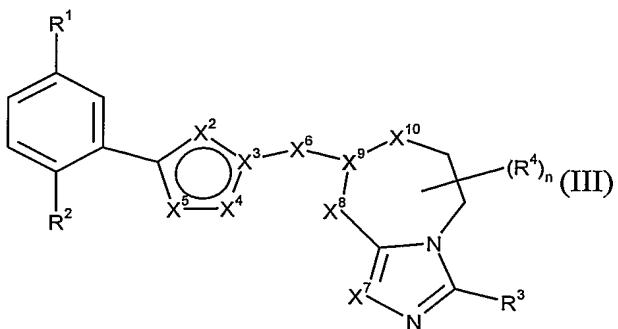
5. The compound according to claim 1, wherein R² is fluorine.

6. The compound according to claim 1, of Formula II:



7. The compound according to claim 6, wherein X⁷ is N.

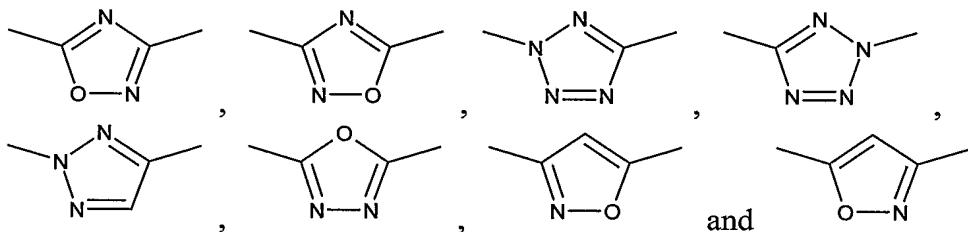
8. The compound according to claim 1, of Formula III:



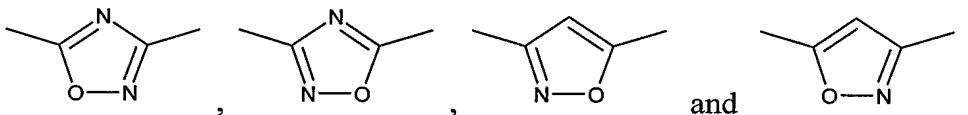
9. The compound according to claim 8, wherein X^3 is C.

10. The compound according to claim 8, wherein X^3 is N.

11. The compound according to claim 1, wherein the ring containing X^1 , X^2 , X^3 , X^4 , and X^5 is selected from the group consisting of:



12. The compound according to claim 11, wherein the ring is selected from the group consisting of:



13. The compound according to claim 11, wherein X^7 is N.

14. The compound according to claim 13, wherein X^8 is a bond.

15. The compound according to claim 13, wherein X^8 is S.

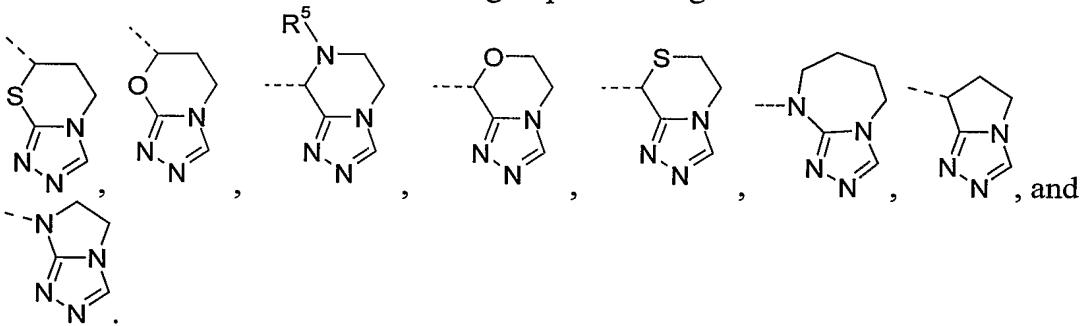
16. The compound according to claim 14, wherein X^9 is CR^5 .

17. The compound according to claim 16, wherein X^{10} is NR^5 .

18. The compound according to claim 16, wherein X^{10} is O.

19. The compound according to claim 16, wherein X^{10} is CR^5R^6 .

20. The compound according to claim 16, wherein X^{10} is $(CR^5R^6)_2$.
21. The compound according to claim 16, wherein X^{10} is a bond.
22. The compound according to claim 15, wherein X^9 is CR^5 .
23. The compound according to claim 22, wherein X^{10} is a bond.
24. The compound according to claim 14, wherein X^9 is N.
25. The compound according to claim 11, wherein the fused ring containing X^7 , X^8 , X^9 , and X^{10} is selected from the group consisting of:



26. The compound according to claim 1 selected from the group consisting of:
 7-[5-(5-Chloro-2-fluorophenyl)-1,2,4-oxadiazol-3-yl]-3-(2-thienyl)-6,7-dihydro-5H-[1,2,4]triazolo[3,4-b][1,3]thiazine,
 9-{[5-(3-chlorophenyl)-1,2,4-oxadiazol-3-yl]methyl}-3-pyridin-4-yl-6,7,8,9-tetrahydro-5H-[1,2,4]triazolo[4,3-a][1,3]diazepine,
 9-{1-[5-(3-chlorophenyl)-1,2,4-oxadiazol-3-yl]ethyl}-3-pyridin-4-yl-6,7,8,9-tetrahydro-5H-[1,2,4]triazolo[4,3-a][1,3]diazepine,
 7-{[5-(3-chlorophenyl)-1,2,4-oxadiazol-3-yl]methyl}-3-pyridin-4-yl-6,7-dihydro-5H-pyrrolo[2,1-c][1,2,4]triazole,
 9-{[5-(3-chlorophenyl)-1,2,4-oxadiazol-3-yl]methyl}-3-(trifluoromethyl)-6,7,8,9-tetrahydro-5H-[1,2,4]triazolo[4,3-a][1,3]diazepine,
 8-[3-(3-Chloro-phenyl)-[1,2,4]oxadiazol-5-yl]-3-(4-methoxy-phenyl)-5,6,7,8-tetrahydro-[1,2,4]triazolo[4,3-a]pyrazine,
 8-[3-(3-Chloro-phenyl)-[1,2,4]oxadiazol-5-yl]-3-(4-methoxy-phenyl)-7-methyl-5,6,7,8-tetrahydro-[1,2,4]triazolo[4,3-a]pyrazine,
 9-{[5-(3-chlorophenyl)isoxazol-3-yl]methyl}-3-(3,5-difluorophenyl)-6,7,8,9-tetrahydro-5H-[1,2,4]triazolo[4,3-a][1,3]diazepine,
 9-{[5-(3-chlorophenyl)isoxazol-3-yl]methyl}-3-(4-methoxyphenyl)-6,7,8,9-tetrahydro-5H-[1,2,4]triazolo[4,3-a][1,3]diazepine,
 9-{[5-(3-chlorophenyl)isoxazol-3-yl]methyl}-3-(4-methoxyphenyl)-6,7,8,9-tetrahydro-5H-[1,2,4]triazolo[4,3-a][1,3]diazepine,
 9-{[5-(3-chlorophenyl)isoxazol-3-yl]methyl}-3-pyridin-4-yl-6,7,8,9-tetrahydro-5H-[1,2,4]triazolo[4,3-a][1,3]diazepine,

9-{[5-(5-chloro-2-fluorophenyl)-1,2,4-oxadiazol-3-yl]methyl}-3-pyridin-4-yl-6,7,8,9-tetrahydro-5H-[1,2,4]triazolo[4,3-a][1,3]diazepine,
9-{[5-(3-chlorophenyl)-1,2,4-oxadiazol-3-yl]methyl}-3-(3,5-difluorophenyl)-6,7,8,9-tetrahydro-5H-[1,2,4]triazolo[4,3-a][1,3]diazepine,
9-{[5-(3-chlorophenyl)-1,2,4-oxadiazol-3-yl]methyl}-3-(4-methoxyphenyl)-6,7,8,9-tetrahydro-5H-[1,2,4]triazolo[4,3-a][1,3]diazepine, and pharmaceutically acceptable salts thereof.

27. A pharmaceutical composition comprising as active ingredient a therapeutically effective amount of the compound according to any one of claims 1-26, and one or more pharmaceutically acceptable diluents, excipients, and/or inert carriers.

28. The pharmaceutical composition according to claim 27, for use in the treatment of mGluR5-mediated disorders.

29. The compound according to any one of claims 1-26, for use in therapy.

30. The compound according to any one of claims 1-26, for use in the treatment of mGluR5-mediated disorders.

31. Use of the compound according to any one of claims 1-26 in the manufacture of a medicament for the treatment of mGluR5-mediated disorders.

32. A method for the treatment of mGluR5-mediated disorders, comprising administering to a mammal a therapeutically effective amount of the compound according to any one of claims 1-26.

33. The method according to claim 32, wherein the mammal is a human.

34. The method according to claim 32, wherein the disorder is a neurological disorder.

35. The method according to claim 32, wherein the disorder is a psychiatric disorder.

36. The method according to claim 32, wherein the disorders are selected from chronic and acute pain disorders.

37. The method according to claim 32, wherein the disorder is a gastrointestinal disorder.

38. A method for inhibiting activation of mGluR5 receptors, comprising contacting a cell containing said receptors with an effective amount of a compound according to any one of claims 1-26.